The relevance of professionals' attachment style, expectations and job attitudes for therapeutic relationships with young people who experience psychosis

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Abstract

Background: Therapeutic relationships are a central component of community treatment for psychosis and thought to influence clinical and social outcomes, yet there is limited research regarding the potential influence of professional characteristics on positive therapeutic relationships in community care. It was hypothesised that professionals' relating style and attitudes toward their work might be important, and thus this exploratory study modelled associations between these characteristics and therapeutic relationships developed in community psychosis treatment.

Methods: Dyads of professionals and young patients with psychosis rated their therapeutic relationships with each other. Professionals also completed measures of attachment style, therapeutic optimism, outcome expectancy, and job attitudes regarding working with psychosis.

Results: Professionals' anxious attachment predicted less positive professional therapeutic relationship ratings. In exploratory directed path analysis, data also supported indirect effects, whereby anxious professional attachment predicts less positive therapeutic relationships through reduced professional therapeutic optimism and less positive job attitudes.

Conclusions: Professional anxious attachment style is directly associated with the therapeutic relationship in psychosis, and indirectly associated through therapeutic optimism and job attitudes. Thus, intervening in professional characteristics could offer an opportunity to limit the impact of insecure attachment on therapeutic relationships in psychosis.

Keywords: Schizophrenia and psychosis; Social and cross-cultural psychiatry; Psychometry and assessments in psychiatry; Psychotherapy; Quality of care

1. Introduction

Young community mental health patients suggest that a positive relationship with a particular optimistic professional influences their outcomes; perhaps to a greater extent than a specific therapy or techniques thereof (1-3). Recent research suggests that the therapeutic relationship plays a causal role in clinical outcomes (4) and predicts social and vocational outcomes for young people with psychosis (5). There may be, however, an added complexity to therapeutic relationships in community care compared to psychotherapy, due to the former's myriad of professional roles and tasks (6-7). Forming positive therapeutic relationships with young people experiencing psychosis may be especially difficult and time-consuming (8-10), but there is a particular potential for professionals to facilitate positive long-term outcomes when intervening early (11-12). A key professional in UK community care is the care co-ordinator. Care co-ordiantors come from a variety of professional backgrounds, including nursing, social work and occupational therapy. The care co-ordinator arguably provides the most contact and support and co-ordinates all other services received (13). Thus exploring care co-ordinator characteristics associated with positive therapeutic relationships in youth psychosis care is warranted. Furthermore, additional exploration of correlates of both professional and patient ratings of therapeutic relationship ratings is important, for these ratings commonly differ (14-15).

Two therapeutic relationship models are particularly relevant for community care; the working alliance and the emotional climate (14, 16). The working alliance is defined as a reciprocal helping relationship, comprised of therapeutic goal and task agreement, and the affective bond (17). It has been suggested that through this therapeutic bond, professionals exhibit positive personal qualities (e.g. warmth), which increase their social attractiveness and thus, their social influence on patients' behaviours (18). The emotional climate model here refers to the caregiver's (negative) 'expressed emotion' (criticism, hostility and emotional over-involvement) toward the patient (19). Qualitative analysis (19-20) suggests that high expressed emotion professionals are less tolerant, less warm, and have low progress expectations.

Professionals' own attachment style may influence their therapeutic relationships (21). Attachment theory suggests early life experiences influence the development of secure or insecure attachment styles, and these attachment styles affect interpersonal relationships in later life (22). It is theorised that therapeutic relationships are a form of attachment relationship (21); thus a professional with a secure attachment style may

better provide a secure base, but also space, for patients to grow and develop. The self-report measure tradition conceptualises insecure attachment as a) anxious; high need for approval, fear of rejection and negative self-image, or b) avoidant; negative images of others, social withdrawal, fear of dependence, and excessive self-reliance (21, 23). Previous research suggests anxious and avoidant self-reported attachment styles of psychiatric keyworker/care co-ordinators correlate with less positive observer-rated therapeutic relationships and interactions with patients (21, 24), and also with psychotherapist-rated therapeutic relationships with clients (25). Links between professional attachment styles and patient-rated therapeutic relationships seem as of yet unexplored.

Socio-cognitive theory (18, 26) suggests individuals' behaviours are influenced by others' expectations, perhaps especially so in the absence of conscious awareness of such expectations. Thus, professionals' beliefs may influence the therapeutic process (27). Especially in psychosis, professionals may have low expectations regarding patient capacities for work and community involvement, and these may influence both therapeutic relationships and patient outcomes (28). Patients value hopeful and optimistic professionals, but report pessimistic interactions with professionals, perceived to have a detrimental effect on hopefulness and wellbeing (27-29). Professionals' implicit projection of hopefulness is thus considered part of forming a positive therapeutic bond (27, 30). Professional expectations can be operationalised as a) therapeutic optimism; global expectations of the possibility of recovery and professional's ability to facilitate this, and b) outcome expectancy; specific expectations of patient abilities to achieve social and occupational outcomes. Both types of expectations are hypothesised to facilitate more positive therapeutic relationships, but empirical exploration is required.

Models from nursing and addiction intervention (31-32) suggest therapeutic relationships are influenced by professionals' attitudes towards their job; namely role security, therapeutic commitment, and empathy. Role security (perceived legitimacy of job tasks and requisite knowledge to perform them) and therapeutic commitment (work satisfaction and perceived willingness and ability to utilise therapeutic qualities) are thought necessary for professionals to provide facilitative conditions needed for therapeutic relationships (31-32). Associations between these two attitudes and inpatient nurse therapeutic relationships have been observed (33). Patient views concur; suggesting their relationship perceptions are more positive for professionals considered to be knowledgeable, skilful, interested and committed (34-35).

Empathy, the emotional and cognitive "capacity to think and feel oneself into the inner life of another person" (36, p. 82), is a widely accepted facilitator of the therapeutic relationship (37-38). Rogerian theory suggests that empathy is one of three necessary and sufficient conditions through which to facilitate therapeutic change; the others being genuineness and unconditional positive regard (39). Within Cognitive Behavioural Therapy for psychosis, therapist self-rated empathy correlated with their therapeutic alliance ratings (40). Qualitative research suggests that patients perceive relationships with empathic professionals as more positive (34), but further empirical research is needed.

In addition to the predicted direct association, professional attachment style may indirectly predict therapeutic relationships through expectations and job attitudes. Theoretically, attachment style influences perceptions of one's own ability to help clients and others' coping abilities (41). Thus own attachment style may affect professionals' perceived ability to help patients (therapeutic optimism) and perceptions of patients' abilities to cope and succeed (outcome expectancy). Attachment security may also predict professionals' job attitudes, through associations with:

- positive appraisals of one's resources, clear vocational self-concept and greater self-reported care-giving competence and self-efficacy (41-43), i.e. role security,
- greater work confidence and positive appraisals of contextual factors at work (43), i.e. therapeutic commitment, and
- greater self-reported empathy of nursing students (44) and observers' ratings of Clinical Psychology trainees' empathic responding to videotaped 'alliance rupture' vignettes (45).

Therefore, it was hypothesised that professional anxious and avoidant attachment styles would be associated with less positive therapeutic relationships, rated by both professionals and young patients experiencing psychosis. It was also hypothesised that this association would be mediated by professionals' expectations (therapeutic optimism and outcome expectancy) and job attitudes (role security, therapeutic commitment, and empathy). This study is the first known exploration of these associations with both professional and patient-rated therapeutic relationships in community psychosis care.

2. Methods

2.1 Participants and procedure

A convenience sample of professional and patient dyads was assessed cross-sectionally. Professionals and young patients with psychosis were recruited from local Community Mental Health, Assertive Outreach and Early Intervention in Psychosis (EIP) services. The young people were aged 18 to 36 years with a primary diagnosis of either first episode psychosis (FEP) or psychotic spectrum disorder, including schizophrenia, schizoaffective disorder, bipolar disorder, schizophreniform disorder, and delusional disorder (as denoted by the treating Psychiatrist). The professional was the care co-ordinator unless the patient reported greater current contact with another professional (i.e. another professional temporarily functioning as care co-ordinator). Dyads with an existing working relationship of three or more months were recruited to ensure the therapeutic relationship had developed prior to measurement (46). Separate confidential face-to-face assessments were conducted within two weeks for patient and professional. Both patients and professionals provided informed consent in writing before undertaking any research procedures. Professionals rated their general attitudes and outcome expectancies before the specific therapeutic relationship with the identified patient. Patients separately rated the therapeutic relationship and measures of potential covariates were obtained.

2.2 Measures.

2.2.1 Therapeutic relationship.

Patient-rated. The working alliance was captured using the short (12 item) Working Alliance Inventory (WAI-s; 47). Previous studies have obtained high reliability for the WAI-s with patients (α= .89) and professionals (α= .94) (48). A mean score for all items was used for the patient (α= .90) and professional version (α= .94). Responses to items such as “(My main professional) and I trust each other” are scored from 1 (never) to 7 (always). Emotional climate from the patient perspective was captured using the 20 item Perceived Expressed Emotion in Staff Scale (PEESS; 49), which captures criticism, intrusiveness, and (lack of) supportiveness. The items, for example “(My main professional) is always interfering”, are rated from 1 (untrue) to 4 (true). Internal consistency was acceptable previously for people given a diagnosis of schizophrenia (49); α= .68- .87. In the current study, a mean for all items was used (α=. 75, with removal of “(My mental health professional) often checks up on me” to improve

Cronbach's alpha). Scores from the patient-rated WAI-s and reverse-scored PEESS (*r* = .74) were transformed into z scores and averaged into one patient therapeutic relationship score (α= .89).

Professional-rated. The WAI-s (47) professional version was used. To capture the emotional climate, professionals completed the 40 item Adjective Checklist (AC; 50), rating perceived own positive and negative behaviours toward the patient and perceived behaviours from the patient toward self. Behaviours such as 'friendly' and 'hostile' are rated from 1 (never) to 8 (always) for the last three months. This measure was reliable with relatives of people with psychosis previously (α= .88-.94) (51). Two items from the positive subscale were removed for present use; 'loving' and 'devoted', as these were perceived to be inappropriate for use with professionals. A mean composite professional-rated therapeutic relationship score was created using positive and reverse-scored negative behaviours (α= .90). The professional WAI-s and the reverse-scored AC (*r* = .76) were transformed into z scores and then averaged (α= .93).

2.2.2 Professional attachment style.

Professional attachment style was measured using the 16 item self-report Psychosis Attachment Measure (PAM; 52). Items capture anxious and avoidant attachment and are rated on a 4-point Likert scale. Adequate internal consistency (anxious; α= .72, avoidant; α= .75) was previously obtained with community mental health professionals (21). In the current analysis, a mean score was used for each subscale, with higher scores reflecting greater attachment anxiety/avoidance. Items were removed from subscales to increase alpha. Cronbach's alpha was.72 for avoidant attachment (with the removal of "I prefer not to let other people know my 'true' thoughts and feelings" and "I find it difficult to accept help from other people when I have problems or difficulties") and .82 for anxiety (with the removal of "I worry that key people in my life won't be around in the future").

2.2.3 Professional expectations.

Therapeutic optimism. Professional therapeutic optimism was measured using the augmented (53) Therapeutic Optimism Scale (TOS; 54), which captures professionals' general recovery optimism and beliefs about their own role. The TOS has 10 items (e.g. "With my assistance most people with mental disorders will recover")

scored from 1 (strongly disagree) to 5 (strongly agree). A mean score for all items is used (α= .73). Higher scores reflect greater therapeutic optimism.

Outcome expectancy. The 42 item measure Case Manager Expectancy Inventory (CMEI; 55) was used to assesses professional outcome expectancy, which reflects professionals' expectations of the ability of clients (in general) to perform social and community activities. The items, prefixed by "I expect that clients with schizophrenia have the ability to…." and followed by various activities, for example "…have intimate relationships"', are scored from 1 (strongly disagree) to 5 (strongly agree). Currently, 'psychosis' was substituted for 'schizophrenia' to ensure appropriateness for patients with FEP. A mean score for all items was used (α=.92), with higher scores reflecting more positive outcome expectancy.

2.2.4 Professional job attitudes.

Role security, therapeutic commitment, and empathy were measured using the modified (56) Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ; 57). Responses are scored from 1 (strongly disagree) to 7 (strongly agree), with higher scores reflecting more positive job attitudes. Role security (α=.70) was a mean score for items from two subscales; professionals' perceptions of their adequacy in their role (5 items, e.g. "I feel I have a working knowledge of delusions and hallucinations") and legitimacy of their professional tasks (4 items, e.g. "I feel I have a clear idea of my responsibilities in helping people who have delusions or hallucinations"). The therapeutic commitment composite reflects scores for the subscales of motivation (5 items, e.g. "I want to work with people who have delusions or hallucinations"), work satisfaction (6 items, e.g. "In general, I like working with people who have delusions or hallucinations") and work self-esteem (5 items, e.g. "At times I feel I am no good at working with people who have delusions and hallucinations" (reverse-scored)). One item was removed from the therapeutic commitment composite ('I wish there was more respect for people who work with people who have delusions or hallucinations') to improve alpha (α= .76, 15 items). Empathy was measured using 4 item the modified AAPPQ empathy subscale (items such as "I can relate to the experiences of those who have delusions or hallucinations"); with removal of the reverse-scored item "I find it difficult to have empathy for the experience of delusions or hallucinations" to increase alpha (α= .75; 3 items).

296

297 **2.2.5 Covariates.**

298

299 Covariates measured included professional duration of employment (months), due to
300 reported association with job attitudes (28, 31), and patients' neurocognition and
301 clinical symptoms and characteristics, due to reported association with therapeutic
302 relationships in early psychosis (58).

303

304 ***Neurocognitive impairment.*** Neurocognitive impairment was captured across
305 core domains of premorbid intelligence (National Adult Reading Test (NART; 59)),
306 working memory (Letter Number Sequencing: Wechsler Memory Scale (WMS; 60)),
307 verbal memory (Logical Memory immediate and delayed recall: WMS; 60)), verbal
308 fluency (Controlled Oral Word Association Test (COWAT; 61)) and Category Instances
309 (61). Individual domain measure scores were transformed into z scores using
310 published population means and standard deviations (59, 62-63). These were then
311 averaged into one composite, with higher scores reflecting lesser impairment.

312

313 ***Clinical symptoms.*** The first author rated the Positive and Negative Syndrome Scale
314 (PANSS; 64) as a measure of clinical symptoms. The total score across all 30 items; 7
315 positive, 7 negative, and 16 general symptoms rated from 1 (none) to 7 (most severe),
316 was used.

317

318 **3. Analysis**

319

320 Bivariate correlations between variables were assessed before computing exploratory
321 mediation models using the Mplus programme (65) to calculate direct and indirect
322 effects. Missing values were handled using Full Information Maximum Likelihood
323 methods (66). Professionals were the primary clinician for multiple patients (i.e.
324 clustered), thus corresponding data are non-independent. Professional attachment
325 style, professional expectations and job attitudes are considered trait-like (22, 31).
326 Therapeutic relationships are thought more specific to individual patients, although not
327 completely independent of professionals' habitual 'feeling styles' (67). Thus it seemed
328 these professional-rated variables might vary between professionals, rather than as
329 corresponding to individual patients (within professionals). Before computing mediation
330 models, any effect of clustering (i.e. professionals participating in multiple patient
331 dyads) was assessed using intraclass correlation coefficients (ICCs) to calculate the
332 location of greater variance (68). Models were first tested controlling for clustering and

non-normal variable distributions as necessary (69), then recomputed using bootstrapping (Maximum Likelihood estimation; 5000 resamples) to assess indirect effects, and then adjusted for covariates. Due to the cross-sectional design, reverse models were then generated to assess whether reverse direction effects could be discounted (69).

4. Results

4.1 Sample characteristics.

Sixty one patients participated with their main mental health professional (*n*= 33), resulting in 61 patient-professional dyads.

INSERT TABLE ONE HERE

Professional outcome expectancy (CMEI; 54) had 11.5% missing values (Table 2), 8.2% of which corresponded to this measure being an amendment to the study, thus it was missing for a small number of participants at the beginning of data collection. Missingness on this measure was associated with a shorter duration of employment in mental health ($t(22.7)= 3.3$, $p= .003$) and reduced therapeutic commitment ($t(41)= -4.7$, $p< .001$) in professionals, which seems to reflect a small minority of long-employed professionals who participated after this measure was added. Data were considered missing at random.

INSERT TABLE TWO HERE

The final sample is clustered with 16 professionals taking part with 1 patient, 10 with 2, 3 with 3, and 4 with 4 ($M= 1.61$). ICCs were high for all professional characteristics (Table 2), suggesting attachment style, expectations and job attitudes are general attitudes. The ICC for the professional-rated therapeutic relationship suggested professionals rate multiple patients similarly, although with some variance, whereas patient ratings vary highly even if corresponding to the same professional. Thus, analyses corrected standard errors for clustering.

Bivariate correlations (Table 2) showed associations between professionals' therapeutic relationship and professionals' anxious attachment, therapeutic optimism and job attitudes (role security and therapeutic commitment). No associations were

significant for professionals' avoidant attachment or for professional empathy. Patient therapeutic relationship ratings correlated with professionals' outcome expectancy, but neither variable correlated with professional attachment style or job attitudes.

INSERT TABLE THREE HERE

4.2 Indirect associations between professional attachment style and therapeutic relationships.

Mediation models were tested separately for each proposed mediator of the association between professional attachment and therapeutic relationships as appropriate considering current sample size (70). Based on the non-significant pattern of correlations (Table 2), models were not tested for professionals' avoidant attachment as a predictor, outcome expectancy or empathy as mediators, or the patient therapeutic relationship as endogenous.

Computed models (Table 3) suggest anxiously-attached professionals form less positive therapeutic relationships (professional-rated). This association appears partially mediated by reduced therapeutic optimism, role security, and therapeutic commitment (for example, Figure 1). The direct association between professional anxious attachment style and the therapeutic relationship is of moderate size according to standardised direct effect coefficients (71). In conjunction with an indirect association through therapeutic optimism or job attitudes, this rises to large (R^2_y= 26-31%) (72).

INSERT FIGURE ONE HERE

All models were robust to covariate adjustment. Reverse models mainly supported the hypothesised direction of effects, i.e. reverse model associations were smaller and/or non-significant. However, the reverse model testing whether the data support therapeutic relationships predicting professional attachment through therapeutic commitment (Figure 2) resulted in a larger indirect association than the hypothesised model (Figure 1). Although it could be that professionals' attachment style becomes 'activated' when reflecting on a specific therapeutic relationship, attachment style is predominantly considered a trait; thus the theoretically congruent hypothesised model (Figure 1) was retained.

INSERT FIGURE TWO HERE

5. Discussion

The aim of this paper was to explore the relevance of professional characteristics to therapeutic relationships with young people experiencing psychosis from both professional and patient perspectives. The main findings were that professionals reporting greater attachment anxiety reported less positive therapeutic relationships with young patients experiencing psychosis. The association between anxious professional attachment and less positive therapeutic relationships is congruent with theory and previous research (21). Despite high levels of avoidant attachment compared to previous studies (73), no significant association between this and therapeutic relationships was observed in the current study. Previous research found only a small association between avoidant attachment and therapeutic relationships (21), thus low power may account for the current null association.

Novel findings of the current study include that the association between professionals' anxious attachment and the therapeutic relationship appeared mediated by professionals exhibiting reduced therapeutic optimism and less positive job attitudes; namely role security and therapeutic commitment. Thus current findings support the relevance of therapeutic relationship models from nursing and addiction services (31-32) to youth psychosis care, in that professionals' role security and therapeutic commitment are relevant to therapeutic relationship development in psychosis, but suggest professional attachment style and therapeutic optimism as additions to these models. Thus for positive therapeutic relationships, perhaps professionals need to not only feel secure within and committed to their role, but also optimistic about the possibility of recovery; with all these attitudes influenced by professionals' general attachment style.

Further novel findings include a lack of observed association between professional attachment or job attitudes and the patient's relationship rating. This is surprising considering qualitative research suggests patients consider professionals' commitment and knowledge important to perceived therapeutic relationship quality (34-35). However nearly all the variance in patient relationship ratings was located between patients. Thus patients' own characteristics may influence their therapeutic relationship perceptions more than professional characteristics; although further testing of professional variables in a larger sample is warranted. Interestingly, however, an observed moderate-sized correlation suggests an association between professional outcome expectancy and patients' therapeutic relationship ratings. The association is

perhaps independent of professional attachment style and other professional characteristics measured, but in keeping with qualitative research suggesting that patients value professionals who convey hope (28) and help them to see new possibilities (35). Thus, future research should test the direction of this association, and explore factors, other than professional attachment style, which may shape professional expectations of outcome, such as professionals' perceptions of community inclusiveness (74).

The observed emerging associations with therapeutic optimism and outcome expectancy add to the growing literature regarding the importance of professional stigma and professionals' attitudes toward recovery. Compared to measures of recovery attitudes and professional stigma (75-76), there is less emphasis in the presently measured therapeutic optimism and outcome expectancy on knowledge of the recovery concept and its varying course, and the presence or absence of potentially controlling or paternalistic practices. Salgado and colleagues (77) suggested that whilst therapeutic optimism, positive expectations and professional hopefulness represent a subset of recovery attitudes, this may be the single most important subset. Thus current research provides exploratory evidence that such professional attitudes may influence the relationships professionals build with patients- which in turn are thought to influence patient outcomes (4-5). Further testing of inter-associations and relative importance of different subsets of professionals' recovery and stigmatising attitudes is warranted.

Surprisingly, current findings suggested no significant association between professional empathy and therapeutic relationships. This is unexpected considering the former's supposed role in increased understanding and meaning creation (78) and observed correlations between these variables in previous research (40). It could be that professional self-reported empathy, as measured in the current study, failed to reflect patient perceptions of professional empathy (78). Further limitations of the current study include the convenience sample, which may have introduced bias, and the cross-sectional design, which did not allow for direct testing of causal relationships. The findings are consistent with the hypothesised direction of associations, although one reverse model suggested larger effects for the influence of a specific therapeutic relationship on professionals' anxious attachment style (through therapeutic commitment). This model is less theoretically plausible, as attachment style is primarily considered a trait (22). However, future research could further explore whether reflection on a specific relationship may 'activate' attachment representations.

Additionally, the current sample size did not allow for testing of proposed mediators simultaneously, meaning their relative-sized associations with the proposed outcome could not be compared.

Despite these limitations, current findings have clear clinical relevance. These findings are especially topical considering recent research suggesting that a negative therapeutic relationship is detrimental to clinical outcomes (4), but a positive therapeutic relationship may promote positive social and vocational outcomes (5). Increasing understandings of how professional characteristics could promote positive therapeutic relationships remains thus a timely and important goal. Although attachment style seems fairly trait-like and stable, it can change (22), but irrespectively, professionals can increase awareness of their attachment styles and the potential influence on therapeutic relationships (21). Current mediation analysis suggests professional therapeutic optimism and job attitudes may also provide avenues for limiting the influence of anxious professional attachment on therapeutic relationships. Professional attitudes seem to be consistent within professionals, i.e. less variance in response to different patients, but these professional attitudes seem amenable to change through even brief training (52, 55, 77). Thus brief training focused on these general professional characteristics may be a very efficient way to improve relationships with all patients experiencing psychosis.

References

1 Lester H, Marshall M, Jones P, Fowler D, Amos T, Khan N, et al. Views of young people in early intervention services for first-episode psychosis in England. Psychiatric Serv. 2011;62(8):882-7.

2 O'Toole MS, Ohlsen RI, Taylor TM, Purvis R, Walters J, Pilowsky LS. Treating first episode psychosis–the patients' perspective: a focus group evaluation. J Psychiatric Ment Health Nurs. 2004;11(3):319-326.

3 Topor A, Borg M, Di Girolamo S, Davidson L. Not just an individual journey: social aspects of recovery. International Journal of Social Psychiatry. 2009;90-9.

4 Goldsmith L, Lewis S, Dunn G, Bentall R. Psychological treatments for early psychosis can be beneficial or harmful, depending on the therapeutic alliance: an instrumental variable analysis. Psychol Med 2015;1-9.

5 Berry C, Greenwood K. Hope-inspiring therapeutic relationships, professional expectations and social inclusion for young people with psychosis. Schiz Res 2015;168(1-2):153-160.

6 Kirsh B, Tate E. Developing a comprehensive understanding of the working alliance in community mental health. Qual Health Res 2006;16(8):1054-1074.

7 McCabe R, Priebe S. The therapeutic relationship in the treatment of severe mental illness: A review of methods and findings. Eur Psychiatry 2004;18(5):220-5.

8 Chadwick P, Birchwood M, Trower P. Cognitive therapy for delusions, voices and paranoia: Towards a person model. Chichester, UK: John Wiley & Sons, Inc. 1996.

9 Frank AF, Gunderson JG. The role of the therapeutic alliance in the treatment of schizophrenia: Relationship to course and outcome. Arch Gen Psychiatry 1996;47(3):228-236.

10 Lincoln CV, McGorry P.Who cares? Pathways to psychiatric care for young people experiencing a first episode of psychosis. Psychiatric Serv 1995;1166-1171.

11 Birchwood M. Early intervention and sustaining the management of vulnerability. Aust Z J Psychiatry 2000;34(2 suppl):S181-4.

12 Fowler D, Hodgekins J, Howells L, Millward M, Ivins A, Taylor G, et al. Can targeted early intervention improve functional recovery in psychosis? A historical control evaluation of the effectiveness of different models of early intervention service provision in Norfolk 1998–2007. Early Interv Psychiatry 2009;3(4):282-8.

13 Department of Health. No health without mental health: A cross-government mental health outcomes strategy for people of all ages. London: Department of Health. 2011.

14 Priebe S, Richardson M, Cooney M, Adedeji O, McCabe R. Does the therapeutic relationship predict outcomes of psychiatric treatment in patients with psychosis? A systematic review. Psychother Psychosom 2011;80(2):70-7.

15 Van Humbeeck G, Van Audenhove C, Storms G, De Hert M, Pieters G, Vertommen H, et al. Expressed emotion in the client-professional dyad. Eur J Psychol Assess 2004;20(4):237-246.

16 Skeem JL, Louden JE, Polaschek D, Camp J. Assessing relationship quality in mandated community treatment: blending care with control. Psychol Assess 2007;19(4):397-410.

17 Bordin ES. The generalizability of the psychoanalytic concept of the working alliance. Psychotherapy: Theory, Research & Practice 1979;16(3):252-260.

18 Safran JD, Segal ZV. Interpersonal process in cognitive therapy. New York: Basic Books; 1990.

19 King S, Dixon MJ. The influence of expressed emotion, family dynamics, and symptom type on the social adjustment of schizophrenic young adults. Arch Gen Psychiatry 1996;53(12):1098-1104.

20 Moore E, Kuipers L. Behavioural correlates of expressed emotion in staff-patient interactions. Soc Psych Psychiatr Epidemiol 1992;27(6):298-303.

21 Berry K, Barrowclough C, Wearden A . Attachment theory: A framework for understanding symptoms and interpersonal relationships in psychosis. Behav Res Ther 2008a;46(12):1275-1282.

22 Bowlby J. Attachment and loss: Volume I, Attachment. New York: Basic Books; 1969.

23 Brennan KA, Clark CL, Shaver PR. Self-report measurement of adult attachment. In: Simpson JA, Rholes WS, editors. Attachment theory and close relationships. New York: The Guildford Press; 1998, p. 46-76.

24 Dozier M, Cue KL, Barnett L. Clinicians as caregivers: role of attachment organization in

treatment. J Consult Clin Psychol 1994;62(4):793-800.

25 Black S, Hardy G, Turpin G, Parry G. Self-reported attachment styles and therapeutic orientation of therapists and their relationship with reported general alliance quality and problems in therapy. Psychol Psychother 2005;78(3):363-377.

26 Rosenthal R, Baratz SS, Hall CM. Teacher behavior, teacher expectations, and gains in pupils' rated creativity. J Genet Psychol 1974;124(1):115-121.

27 Cutcliffe JR. The inspiration of hope in bereavement counseling. Issues Ment Health Nurs 2004;25(2):165-190.

28 O'Connell MJ, Stein CH. The relationship between case manager expectations and outcomes of persons diagnosed with schizophrenia. Community Ment Health J 2011;47(4):424-435.

29 Borg M, Kristiansen K. Recovery-oriented professionals: Helping relationships in mental health services. J Ment Health 2004;13(5):493-505.

30 Snyder CR, Taylor JD. Hope as a common factor across psychotherapy approaches: A lesson from the dodo's verdict. In: Snyder CR, editor. Handbook of hope: Theory, measures, and applications. San Diego, CA: Academic Press; 2000, p. 89-108.

31 Lauder W, Reynolds W, Smith A, Sharkey S. A comparison of therapeutic commitment, role support, role competency and empathy in three cohorts of nursing students. J Psychiatric Ment Health Nurs 2002;9(4):483-491.

32 Shaw S, Cartwright A, Spratley T, Harwin J. Responding to drinking problems. London, UK: Croom-Helm; 1978.

33 Roche M, Duffield C, White E. Factors in the practice environment of nurses working in inpatient mental health: A partial least squares path modeling approach. International Journal of Nursing Studies 2011;48(12):1475-1486.

34 Johansson H, Eklund M. Patients' opinion on what constitutes good psychiatric care. Scandinavian J Caring Sciences 2003;17(4):339-346.

35 Svedberg P, Jormfeldt H, Arvidsson B. Patients' conceptions of how health processes are promoted in mental health nursing. A qualitative study. J Psychiatric Ment Health Nurs 2003;10(4):448-456.

36 Kohut H, Goldberg A, Stepansky PE. How does analysis cure? Chicago, IL: University of Chicago Press; 1984.

37 Watson JC, Geller SM. The relation among the relationship conditions, working alliance, and outcome in both process–experiential and cognitive–behavioral psychotherapy. Psychother Res 2005;15(1-2):25-33.

38 Zuroff DC, Blatt SJ, Sotsky SM, Krupnick JL, Martin DJ, Sanislow III CA, et al. Relation of therapeutic alliance and perfectionism to outcome in brief outpatient treatment of depression. J Consult Clin Psychol 2000;68(1):114-124.

39 Rogers CR. The necessary and sufficient conditions of therapeutic personality change. J Consult Psychol 1957;21:95-103.

40 Evans-Jones C, Peters E, Barker C. The therapeutic relationship in CBT for psychosis: client, therapist and therapy factors. Behav Cog Psychother 2009;37(05):527-540.

41 Mikulincer M, Shaver PR, Cassidy J, Berant E. Attachment-related defensive processes. In: Obegi JH, Berant E, editors. Attachment theory and research in clinical work with adults. New York: The Guildford Press; 2009, p. 293-327.

42 Leiper R, Casares P. An investigation of the attachment organization of clinical psychologists and its relationship to clinical practice. Br J Med Psychol 2000;73(4):449-464.

43 Ronen S, Mikulincer M. Attachment orientations and job burnout: The mediating roles of team cohesion and organizational fairness. Journal of Social and Personal Relationships 2009;26(4):549-567.

44 Khodabakhsh M. Attachment styles as predictors of empathy in nursing students. J Med Ethics Hist Med 2012;5:8-15.

45 Rubino G, Barker C, Roth T, Fearon P. Therapist empathy and depth of interpretation in response to potential alliance ruptures: The role of therapist and patient attachment styles. Psychother Res 2000;10(4):408-420.

46 Gumley AI. Staying well after psychosis: A cognitive interpersonal approach to emotional recovery and relapse prevention. Tiddskrift For Norsk Psykologorening 2007;5:667-676.

47 Tracey TJ, Kokotovic AM. Factor structure of the working alliance inventory. J Consult Clin Psychol 1989;1(3):207-210.

48 Calsyn RJ, Klinkenberg WD, Morse GA, Lemming MR. Predictors of the working alliance in assertive community treatment. Community Ment Health J 2006;42(2):161-175.

49 Forster J, Finlayson S, Bentall R, Day J, Randall F, Wood P, et al. The perceived expressed emotion in staff scale. J Psychiatric Ment Health Nurs 2003;10(1):109-117.

50 Friedmann MS, Goldstein MJ. Relatives' awareness of their own expressed emotion as measured by a self-report Adjective Checklist. Family Process 1993;32(4):459-471.

51 Friedmann MS, Goldstein MJ. Relatives' perceptions of their interactional behavior with a schizophrenic family member. Family Process 1994;33(4):377-387.

52 Berry K, Wearden A, Barrowclough C, Liversidge T. Attachment styles, interpersonal relationships and psychotic phenomena in a non-clinical student sample. Personality and Individual Differences 2006;41(4):707-718.

53 Byrne MK, Deane FP, Lambert G, Coombs T. Enhancing medication adherence: clinician outcomes from the Medication Alliance training program. Aust N Z J Psychiatry 2004;38(4):246-253.

54 Bruckner F. Therapeutic optimism: Its components and correlates among clinical social workers. New York: Adelphi University School of Social Work; 1979.

55 O'Connell MJ. The development of case manager expectations about the abilities of clients with schizophrenia: The case manager expectancy inventory. Bowling Green State University; 2000.

56 Macleod HJ, Deane FP, Hogbin B. Changing staff attitudes and empathy for people with psychosis. Behav Cog Psychother 2002;30(4):459-470.

57 Cartwright A . The attitudes of helping agents towards the alcoholic client: The influence of experience, support, training, and self-esteem. Br J Addiction 1980;75(4):413-431.

58 Johansen R, Iversen VC, Melle I, Hestad KA. Therapeutic alliance in early schizophrenia spectrum disorders: a cross-sectional study. Annals Gen Psychiatry 2013;12(14):1-10.

59 Nelson HE. National adult reading test: Test manual. Windsor, Berkshire: NFER-Nelson; 1982

60 Wechsler D. Wechsler Memory Scale: Revised manual. San Antonio, TX: Psychological Corporation; 1981.

61 Benton AL, Hamsher K. Multilingual aphasia examination. Iowa City, IA: AJA Associates; 1983.

62 Tombaugh TN, Kozak J, Rees L. Normative data stratified by age and education for two measures of verbal fluency: FAS and animal naming. Arch Clin Neuropsychol 1999;14(2):167-177.

63 Nelson HE, Willison JR. The revised National Adult Reading Test: Test manual. Windsor, Berkshire: NFER-Nelson; 1991.

64 Kay SR, Flszbein A, Opfer LA. The positive and negative syndrome scale (PANSS) for schizophrenia. Schiz Bull 1987;13(2):261-276.

65 Muthén LK, Muthén B. Mplus user's guide. Los Angeles, CA; 1998-2010.

66 Johnson DR, Young R. Toward best practices in analyzing datasets with missing data: Comparisons and recommendations. Journal of Marriage and Family 2011;73(5):926-945.

67 Holmqvist R, Armelius BÅ . Sources of psychiatric staff members' feelings towards patients and treatment outcome. Psycho Psychother 2006;79(4):571-584.

68 Nezlek JB. Multilevel modeling for social and personality psychology. London: SAGE Publications Ltd; 2011

69 Kline RB. Principles and practices of structural equation modeling. New York: The Guildford Press; 2011.

70 Bentler PM, Chou C-P. Practical issues in structural modeling. Sociolog Methods Res 1987;16(1):78-117.

71 Cohen J. Statistical power analysis for the behavioral sciences. Hillsdale, NJ: Lawrence Erlbaum Associates Publishers; 1988.

72 Cohen J. A power primer. Psychol Bull 1992;112(1):155-9.

73 Berry K, Band R, Corcoran R, Barrowclough C, Wearden A. Attachment styles, earlier interpersonal relationships and schizotypy in a non-clinical sample. Psychol Psychother 2007;80(4):563-576.

74 Bertram G, Stickley T. Mental health nurses, promoters of inclusion or perpetuators of exclusion? J Psychiatric Ment Health Nurs 2005;12(4):387-395.

75 Borkin J, Steffen J, Krzton E, Wishnick H, Wilder K, Yangarber N. Recovery Attitudes Questionnaire: Development and evaluation. Psychiatric Rehabilitation J 2000;24:95-102.

76 Bedregal LE, O'Connell M, Davidson L. The Recovery Knowledge Inventory: Assessment of mental health staff knowledge and attitudes about recovery. Psychiatric Rehabilitation J 2006;30, 96-103.

77 Salgado JD, Deane FP, Crowe TP, Oades LG. Hope and improvements in mental health service providers' recovery attitudes following training. J Ment Health 2010;19(3):243-248.

78 Reynolds W. The measurement and development of empathy in nursing. Aldershot, UK: Ashgate Publishing Limited; 2000.

Vitae

Dr Clio Berry

I am the Trial Manager for the National Institute for Health Research funded PRODIGY Trial (ISRCTN47998710) focused on improving social recovery in youth mental health, and an early-career Research Fellow in the School of Psychology, University of Sussex. My research interests include (i) social inclusion and recovery in youth mental and psychosis, (ii) relational, therapeutic process, clinical, and individual facilitators of positive social and recovery outcomes in youth mental health, (iii) experiences of lived experience experts in mental health research and service delivery, and (iv) outcome and process measurement in mental health.

Dr Kathryn Greenwood

I am Hon. Senior Research Fellow in the University of Sussex, School of Psychology and Consultant Clinical Psychologist, R&D Department. I am director of the Sussex Psychosis Research interest Group (www.sussex.ac.uk/spriglab). My research interests include (i) facilitators of youth engagement in mental health and help seeking and (ii) the role of internal (cognition, metacognition, self-beliefs) and external (mental health services and therapeutic relation) factors on recovery, function, physical health and social inclusion outcomes in psychosis. I have 20 years research experience, funded by grants from the National Institute for Health Research, UK.

Table 1

Sample characteristics for patient and mental health professional participants

Sample characteristic	Patients (n= 61)	Professionals (n= 33)
Age in years (M (sd))	25.90 (5.44)	43.82 (7.84)
Male	36 (59%)	9 (27.27%)
Ethnicity		
White British	48 (78.7%)	28 (84.84%)
White Other	4 (6.6%)	4 (12.12%)
African	3 (4.9%)	
Mixed	4 (6.6%)	
Other Asian	2 (3.3%)	
Indian		1 (3.03%)
Diagnosis		
First episode psychosis	31 (60.8%)	
Schizophrenia	11 (21.6%)	
Schizoaffective disorder	4 (7.8%)	
Bipolar disorder	4 (7.8%)	
Puerperal psychosis	1 (2%)	
Total PANSS symptoms	55.98 (12.67)	
Total service use duration in months (M (sd))	36.02 (41.43)	
Therapeutic relationship duration in months (M (sd))	19.34 (13.48)	
Professional group		
Nurse		24 (72.72%)
Occupational therapist		5 (15.15%)
Social worker		3 (9.09%)
Clinical psychologist		1 (3.03%)

Note: Frequencies and percentages are shown in table with the exceptions of participant age, total PANSS symptoms, total service use duration, and therapeutic relationship duration, which are given as mean and standard deviation.

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Table 2

Descriptive statistics and bivariate correlations between professionals' attachment style, expectations, job attitudes and therapeutic relationships

	M (*SD*)	Range	ICC	Bivariate Correlations								
				Anx	Av	TO	OE	RS	TC	E	PTR	SUTR
Professional attachment style												
Anxious (Anx)	1.59 (.43)[b]	1-2.63	0.63	1								
Avoidant (Av)	2.12 (.54)[b]	1-3.80	0.86	-.18	1							
Professional expectations												
Therapeutic optimism (TO)	4.41 (.32)[c]	3.6-5	0.61	-.35*	-.03	1						
Outcome expectancy (OE)	3.99 (.58)[e]	2.74-4.95	0.73	-.18	.13	.24	1					
Professional job attitudes												
Role security (RS)	5.54 (.54)[c]	4.67-6.78	0.60	-.35**	.08	.26	.05	1				
Therapeutic commitment (TC)	6.25 (.40)	5.27-7	0.68	-.62***	.09	.44**	.30*	.44**	1			
Empathy (E)	4.84 (1.17)	1.67-7	0.93	-.04	-.05	-.26	-.13	.06	-.02	1		
Therapeutic relationships												
Professional rated (PTR)[a]	.00 (.93)	-2.62-1.67	0.57	-.50***	.02	.47***	.21	.34*	.49***	-.02	1	
Working alliance	5.56 (.77)	3.75-6.83										
Adjective Checklist	7.16 (.52)	5.33-8										
Patient rated (SUTR)[a]	-.00 (.92)	-2.57-1.35	0.01	-.06	.04	.13	.42**	.11	.09	.10	.38**	1

Working Alliance	5.68 (.87)	3.25-7
Perceived Expressed Emotion in Staff	3.72 (.24)	3.11-4

Notes: *** $p < .001$, ** $p < .01$, * $p < .05$. ICC= Intraclass Correlation Coefficient. [a]Mean z scores across multiple variables, [b]$n = 59$, [c]$n = 58$, [d]$n = 57$, [e]$n = 54$.

Table 3

Effects of professional anxious attachment style (predictor; x) on the professional-rated therapeutic relationship (y) by mediators (m) therapeutic optimism and job attitudes (role security and therapeutic commitment)

Outcome (y)	Mediator (m)	a (x→m)		b (m→y)		Total (c)		Direct (c')		Indirect (ab)		R^2_m	R^2_y
		(*a*, a)		(*b*, b)		(*c*, c)		(*c'*, c')		(*ab* (95% CI)), ab)			
Professional-rated therapeutic relationship	Therapeutic optimism	-.35	-.29*	.33	.88*	-.50	-.08***	-.39	-.83**	-.12	-.25 (-.08, -.52)	.06	.26
Professional-rated therapeutic relationship	Role security	-.36	-.45*	.20	.33	-.50	-1.08***	-.43	-.93**	-.07	-.15 (-.39, -.02)	.13	.28
Professional-rated therapeutic relationship	Therapeutic commitment	-.62	-.58***	.28	.65	-.51	-1.09***	-.33	-.72	-.18	-.38 (-.75, -.04)	.38	.31

*** *p*< .001, ** *p*< .01, * *p*< .05. *Notes*: p values for a, b, c, and c' paths computed using MLR estimation and clustering. 95% confidence intervals computed in separate models using ML estimation and bootstrapping. 95% BBCIs which do not contain 0 suggest significant mediation.